USER MANUAL

DVD 1230 R

V4.0

Bestell Nummer 9103 – 0284

Welcome.

We are delighted that you have decided to purchase a T+A product. With your new **DVD 1230 R** you have acquired a top-quality piece of equipment which has been designed and developed with the wishes of the audiophile music lover as absolute top priority.

Our innovative approach to solving problems, the solid, carefully thought-out construction and the high-quality materials ensure that this unit will satisfy your highest demands and requirements over a period of many years.

Thorough quality checking of all materials, painstaking production by highly qualified staff, and a fully automatic, computer-controlled final quality control process guarantee a product of high quality which meets the specification in full.

In our production system we avoid the use of all environmentally harmful and potentially injurious substances, such as chlorine-based solvents and CFCs.

Moreover we avoid the use of plastics (especially PVC) as a constructional element wherever possible. Instead we rely upon metals and other non-harmful materials which on the one hand are recyclable and on the other offer very good electrical shielding characteristics.

Our insistence on solid all-metal cases eliminates the problem of adverse effects on sound quality caused by external sources of interference. This also ensures that the electro-magnetic radiation (electro-smog) caused by our equipment is effectively shielded, reducing it to an absolute minimum.

Your DVD video player is a playback device for digital audio and video media which meet the universal DVD video standard. The unit is capable of playing cinema films in true cinema picture quality, and also provides stereo or multi-channel sound, depending on medium and playback system.

All the unique features of DVD video are available, such as selecting the sound channel and sub-title language, and choosing different angles of view (also depending on DVD type). The unit also includes a child security system which allows you to determine which DVDs your children are permitted to view.

You will soon discover that this player is amazingly easy to operate thanks to the **O**n-**S**creen **D**isplay function, which shows menus on the TV screen, the clear, comprehensible integral screen and the remote control handset.

In addition to DVDs the machine can also play video CDs (VCD) and audio CDs. The media which can be played are marked with one or more of the following logos on the disc packaging.

The unit features digital audio outputs for connection to DOLBY DIGITAL [1], dts DIGITAL OUT [2]) and MPEG multi-channel decoders.

A range of high-quality cables and connectors is available as accessories for this unit, as well as specially designed furniture matching the player's design.

Please accept our thanks for your faith in us; we wish you many hours of pleasure with your **DVD 1230 R**.

T+A elektroakustik GmbH & Co KG

CE All components used in this device satisfy the currently valid German and European safety norms and standards. In the interests of your own safety please read right through these operating instructions, paying particular attention to the safety notes and the instructions for setting up and operating the equipment.

1) Manufactured under licence to Dolby Laboratories. „Dolby" and the double-D symbol are registered trademarks of Dolby Laboratories. Confidential, unpublished documents. © 1992-1997 Dolby Laboratories. All rights reserved.

2) „DTS" is a registered trademark of Digital Theater Systems, Inc.

This product complies with the Low Voltage Directive (73/23/EEC), EMV Directives (89/336/EEC, 92/31/EEC) and CE Marking Directive (93/68/EEC).

IMPORTANT! CAUTION!

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.
Refer all servicing to qualified personnel.

The following caution label appear on your device:

Rear panel

CLASS 1
LASER PRODUCT

On the inner protective housing of the DVD mechanism

CAUTION:	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM
VORSICHT:	SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN
ATTENTION:	RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE EXPOSITION DANGEREUSE AU FAISCEAU
DANGER:	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM

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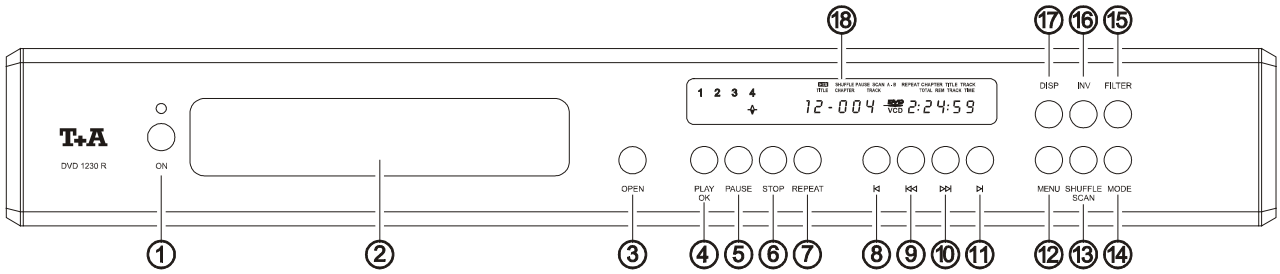
Front panel controls



① ON

On / Off switch.
The green LED glows when the unit is switched on and ready to use.

Note:

If the **DVD 1230 R** is connected to a pre-amplifier, integrated amplifier or receiver within an **'R'** system, it can be switched off, with the whole system, by pressing the ⏻ button on the remote control handset.

> **Note:**
> The mains button is not an isolation switch. Some parts of the circuit are still live when the unit is switched off.

② CD drawer

The drawer of the **DVD 1230 R** consists of a combination of a special plastic with good damping qualities, and solid, precision-machined treated aluminium. Its floating, flexible suspension system eliminates the transfer of mechanical vibration to the disc, which can have an adverse effect on the sound.

③ OPEN

Button for opening and closing the drawer.

④ PLAY OK

A short press on this button starts playback, or resumes playback after a **Pause**.

A long press switches to cursor control (see **'Manual cursor control'**).

It is also used as the select / confirm button within the menu control system.

⑤ PAUSE

A short press on this button switches the unit to **Pause / static picture**. Press the PLAY OK-button to resume playback.

During DVD playback repeated **short presses** of the PAUSE button move on to the next single frame of the film.

Repeated **long presses** (around 2 seconds) during DVD playback switch to different slow motion speeds. Press the PLAY OK-button to stop slow motion.

⑥ STOP

The STOP button ends playback.

⑦ REPEAT

Repeated brief presses on the REPEAT button before or during playback causes the section, item, title or whole CD or DVD to be repeated, depending on the medium in use.

⑧ / ⑪ ⏮ / ⏭

These buttons are used to select the previous / next title, section or music track during playback, or select an MP3 track within an album directory. *)

⑨ / ⑩ ⏪ / ⏩

Fast-forward and rewind to search for a particular passage, or to select an album directory on an MP3-CD. To end the fast-forward or rewind process press the PLAY OK- button to resume normal playback. *)

*) **Note:**

In the Select menu the buttons are used to move around the menu, as shown below:

⏮	⏪	⏩	⏭
down	left	right	up

⑫ MENU

A short press opens the Disc menu (see **'Menu functions'**).

A long press switches on the on-screen control bar.

⑬ SHUFFLE SCAN

A short press on this button switches on the **'Shuffle'** function (= playback in random order).

A long press (around 2 seconds) switches the **'Scan'** function on. This means that every track on the disc is played (sampled) for about ten seconds.
To continue playback of the current track either press the SHUFFLE SCAN-button again, or press the PLAY OK-button.

⑭ MODE

DVD mode: sound track and camera angle

A short press on the MODE button switches to different **sound tracks**, if present on the DVD.

A long press (around 2 seconds) on the MODE button during DVD playback can be used to select different **camera angles**, assuming that the currently playing DVD contains alternative camera perspectives.

CD mode: A / B sequence repeat

A brief press on this button during CD playback switches to **A / B sequence repeat**.

When you reach the start of the sequence to be repeated, press the MODE button to set the A marker.

The end marker B is also set by pressing the MODE button.

Once you have set the End marker, the machine repeats the marked sequence until you press the MODE button again to terminate the repeat process.

⑮ FILTER

Pressing this button repeatedly switches to each of the **DVD 1230 R**'s five digital filters in turn.
For more information on filters please refer to the Section **'*Technical description of digital filters*'**.

⑯ INV

This button toggles between normal and inverse absolute phase of the signal.

⑰ DISP

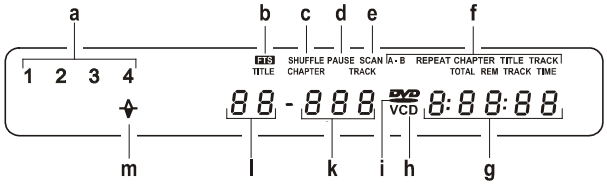
Adjusting screen brightness

The brightness of the **DVD 1230 R**'s integral screen can be set to any of three stages to suit your personal preference. This is done by pressing the DISP button. The following brightness levels are available:

1. **Normal setting:**
   good legibility, even in bright conditions and sunlight.
2. **Subdued:**
   Subdued setting, for dark locations.
3. **Display off:**
   the screen is switched off completely. The screen lights up for a few seconds whenever a command is sent to the unit, so that you can see the new setting.

Note:
When you switch the unit on, the screen lights up brightly for a short period so that you can see the current mode of operation. It then reverts to the state (bright / subdued / off) which you selected before you last switched off.

⑱ Screen window



All the screen elements of the **DVD 1230 R** are displayed in a clearly laid-out window on the integral screen:

a) At this position the active digital filter is indicated by a glowing code number (**1** … **4**). If no number is lit, the standard FIR filter is currently active.

b) FTS active (playback program)

c) SHUFFLE active (random sequence)

d) PAUSE active

e) SCAN active

f) REPEAT / CHAPTER / TITLE / TRACK mode active

g) TOTAL, total playing time / TRACK TIME,
track duration in hours, minutes and seconds

h) (V)CD inserted

i) DVD inserted

k) CHAPTER number (section - DVD only)

l) TRACK / TITLE number

m) The ⏚ symbol glows if the inverse output signal has been selected.

Operating the DVD 1230 R

Switching on

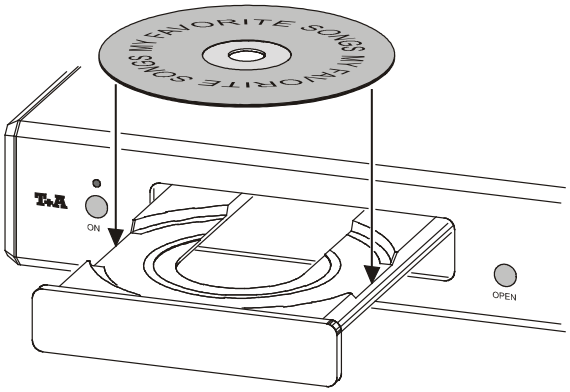
Press the (ON) button on the front panel of the unit. The green indicator LED above the button lights up, as does the integral screen. The unit is now ready for use.

Switch on the Hi-Fi system for stereo sound, and select the input for the CD/DVD player.

To play DVD video with multi-channel (surround) sound, switch on the home cinema system and select the digital source input for the **DVD** video player. Switch on the TV set and select the video input for the DVD player.

Inserting a CD / DVD / VCD

1. Press the (OPEN) button on the front panel to open the drawer.
2. Place the disc in the **centre** of the circular recess in the drawer, **with the side to be played facing down.**



3. Press the (OPEN) button on the front panel to close the drawer.

Starting playback

The machine features an **AUTOPLAY** function: playback starts automatically when you close the drawer.

Note:

Some DVDs disable automatic start. Instead they present an on-screen select menu, or force a STOP.

In such cases please follow the instructions in the menu, or start playback manually by pressing the (PLAY OK)-button on the front panel, or the ⏭ button on the remote control handset.

Stopping playback

You can stop playback at any time by pressing the (STOP) button.

Resuming playback

You can resume playback of a stopped CD / DVD / VCD by pressing the (PLAY OK)- button on the front panel, or the ⏭ or (OK) button on the remote control handset.

RESUME function (DVD / VCD playback only)
To resume playback of a DVD / VCD at the exact point at which you interrupted the film, press the (PLAY) or (OK) button a second time, provided that the **RESUME** button

is superimposed on the screen.

Note:

The **RESUME** function not only works with the DVD currently in the player, but also with the four DVDs which you last played. Simply insert the DVD again, and press the (PLAY) or (OK) button as soon as the **RESUME** symbol appears on the screen.

Selecting a Chapter or Title

1.) Selecting using a skip button

You can initially select CD tracks, DVD titles or chapters by pressing the skip forward button ⏭ or the skip back button ⏮ repeatedly until you reach the desired point.

Note regarding DVD:

If the last chapter of a title is reached, the machine skips automatically to the previous or following track.

2.) Selecting using the DVD disc menu

Most DVDs feature a Select menu for titles and scenes in a film. Once you insert a DVD this menu usually appears automatically. During playback the menu can be called up at any time by pressing the blue (SRC) button (F1: blue (SRC ◁▷) rocker). Select the desired scene from the menu, and confirm your selection by pressing the (OK) button. Playback now jumps straight to the selected scene.

3.) Selecting chapter and track - direct numeric input

It is also possible to select a DVD chapter or CD track by entering the number of the section using the numeric buttons (0 . . . 9) on the remote control handset.

Note:
If the number has more than one digit, press the digits quickly in sequence.

4.) Selecting chapter and track using the control bar

Another alternative for selecting the CD track or chapter is the control bar (see **'On-screen control bar'**).

In the control bar you can select from the points

T = DVD title / CD track

or

C = DVD chapter

the title or chapter you wish to play.

SEARCH

The standard search takes place at quadruple speed, and is started by pressing the front panel buttons ⏮ / ⏭ or the remote control buttons ◀◀ / ▶▶. Press the search button again to increase the search speed. The search can be stopped at any time by pressing the OK button.

The sound is muted during the search process.

Search using the control bar (DVD / VCD only):

In DVD mode a search can also be initiated under the

▶▶

point using the control bar. In this case the speeds 4x, 8x and 32x are available.

REPEAT

The machine features three **REPEAT** modes, for repeating chapters, titles or the entire disc.

REPEAT mode	Screen display	OSD Symbol
Chapter (DVD only)	**REPEAT CHAPTER**	chapter
Title	**REPEAT TITLE**	title
Complete disc	**REPEAT**	repeat

To switch on and select a **REPEAT** mode press the REPEAT button on the front panel repeatedly until the desired mode is displayed.

REPEAT	using the F1 remote control handset
• The **REPEAT** modes can also be selected using the ⮌ button on the F1 handset.	

SHUFFLE (random playback)

This function provides a means of playing back chapters or tracks in a random sequence.

Switching SHUFFLE mode on and off

- **Briefly** press the SHUFFLE SCAN-button on the front panel during playback. **Shuffle** mode is displayed on the screen.
- Press the SHUFFLE SCAN- button again to end **Shuffle** mode.

SHUFFLE	using the F1 remote control handset
• **Shuffle** mode can also be initiated by pressing the ? button on the F1 handset.	

SCAN

This is the procedure for playing the first 10 seconds of each track on a CD or chapter on a DVD:

- Hold the SHUFFLE SCAN-button on the front panel pressed in for about 2 seconds.
- To continue playback of the selected track hold the SHUFFLE SCAN- button pressed in again, or press the PLAY OK button briefly.

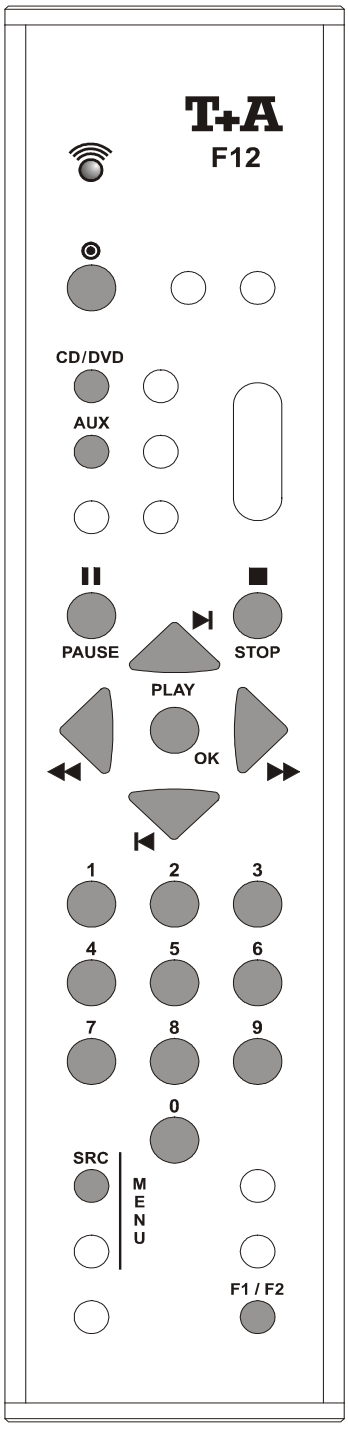
SCAN	using the F1 remote control handset
• Hold the ? button pressed in for about **2 seconds**.	
• To continue playback of the selected track hold the ? button pressed in again for **2 seconds**, or press the OK or PLAY button briefly.	

Remote control of the DVD 1230 R

Introduction

The machine is supplied complete with the **F12** remote control handset, which provides remote control of all the player's most important functions.

In the illustrations those buttons which are required to operate the DVD player are marked "▬". None of the other buttons has any effect on the DVD player.



⏻	Switches DVD player to stand-by
AUX or CD	Switches DVD player on, selects DVD as program source
⏭	In STOP mode: **Starts playback** (PLAY) During playback: Selects next title MP3-CD: Select the next track within an album directory
⏮	Selects previous title MP3-CD: Select the previous track within an album directory
◀◀ ▶▶	Fast rewind / forward MP3-CD: Select the album
OK	**brief press:** Ends following modes: **PAUSE** / **SEARCH** / **SCAN** **long press:** Switches to cursor control (see '***Manual cursor control***') MP3-CD: Start playback
PAUSE	**brief press:** Interrupt playback Next individual DVD frame **long press:** Slow motion: $^1/_2$, $^1/_4$, $^1/_8$ speed
STOP	**brief press:** End playback **long press:** Open drawer
0 .. 9	**Number buttons: direct track / chapter select**
F1 / F2 (corresponds to MODE button on front panel)	**brief press** **with DVD:** Switch synchronous language **with CD:** Repeat A / B sequence **long press:** Camera view angle
SRC	**brief press:** Open Disc menu (see '***Menu function***') **long press:** Switch on on-screen control bar
Menu control ⏭ ◀◀ ▶▶ ⏮ OK 0 .. 9	In Select menus the following buttons are used for navigation within the menu: up left right down **Select / confirm button** *[ENTER]* **Menu points** which are marked with a number can be selected directly using the numeric buttons.

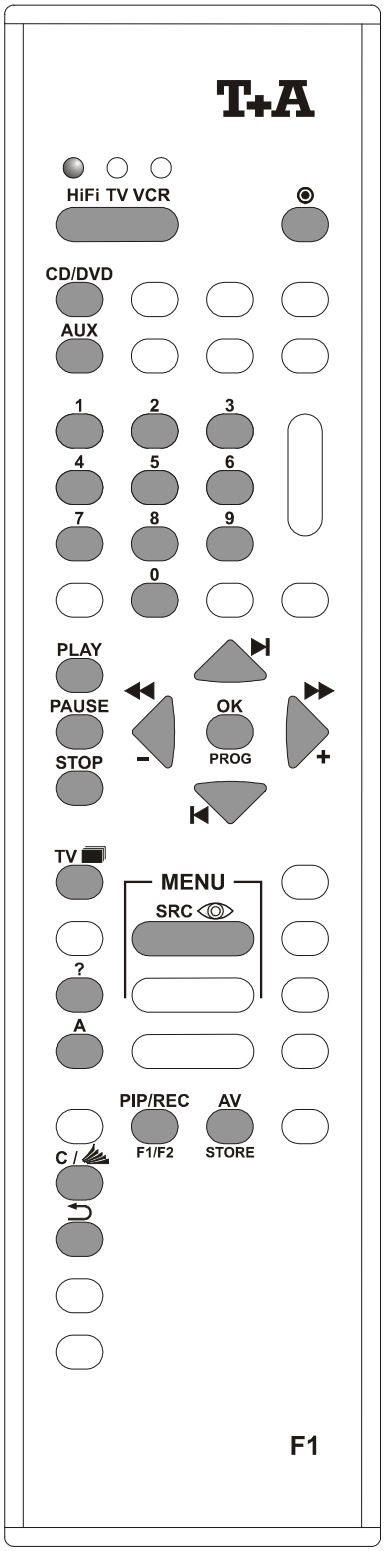
The F1 system remote control handset

The **DVD 1230 R** can also be operated using the **T+A F1** remote control handset. Controlling the **DVD 1230 R** with the **F1** system remote control basically involves exactly the same procedure as with the **F12**. Buttons of the same name have the same function as on the **F12**.

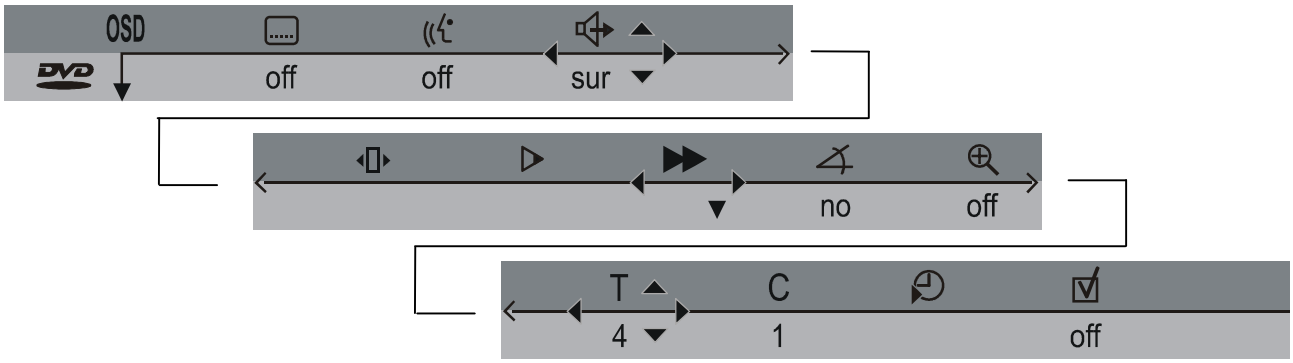
The **F1** features additional buttons, and therefore provides a means of operating some other functions directly. The additional buttons are described in the following section.

PLAY	Start playback / end **PAUSE**
TV	Show / hide on-screen control bar
A	**Repeat sequence** (A-B repeat)
C /	Call up **Chapter / title input** of control bar (DVD mode only)
PIP (same function as the F1 / F2 button on the **F12** remote)	**short press:** synchronous language **long press:** camera view angle
AV STORE	Switch sub-title language or switch sub-titles off
	Toggle **REPEAT** modes
? (same function as the SHUFFLE SCAN button on the front panel)	**short press:** SHUFFLE = random titles playback **long press:** SCAN = brief play of all titles

Note:
The **F1** must be switched to Hi-Fi control in order to control the DVD player.



On-screen control bar



Almost all the functions of the **DVD 1230 R** can be controlled very con-veniently using the clearly laid-out „On-screen control bar“.

The table alongside shows the meaning of the pictograms used in the control bar, and the media (DVD, CD or VCD) to which they apply (●).

Calling up the control bar
During playback the control bar is opened with a long press (about 2 seconds) on the (MENU)-button on the front panel, or the (SRC)-button on the remote control handset. It is displayed on the screen of the TV set connected to the system.

Selecting functions
The function to be changed is selected using the ◁◁ / ▷▷ buttons.
Once you have reached the desired function, press the ▽ button to activate it.
The ▽ / △ buttons can now be used to move to any sub-points which may be present, or to return to the top line in the control bar.

Changing / adjusting
The ◁◁ / ▷▷ buttons on the remote control handset are used to change or adjust a function once activated.

Closing the control bar
When you have finished using the control bar, it can be closed with a short press on the (OK) button.

Symbol	DVD	CD	VCD SVCD PCD	Meaning
OSD	●	●	●	SETUP menu (see **'Basic player settings'**)
T	●	●	●	Title select
C	●	—	—	Chapter select
	●	—	—	Synchronous language / sound track
	—	—	●	Audio channel select (L / R, L mono, R mono)
	●	—	●	Sub-title select
	●	—	—	Camera angle
	●	—	●	Zoom (picture enlargement)
	●	—	—	Playback program
	●	—	—	AUDIO mode: stereo / surround **Note:** Setting applies to the analogue output only. The digital output is not affected by this setting.
	●	—	●	Individual picture playback
	●	—	●	Slow motion
	●	—	●	Search
	●	—	—	Direct time marker input (skip to pre-set time marker)

Note:
The functions which can be adjusted or changed at any time vary according to the medium in the disc drawer (CD, DVD, VCD, photo CD). Note also that not all discs support the possible functions for that medium. For example, not all discs contain sub-titles or multiple languages. You will find full information on the disc packaging.

Functions which can be altered are displayed in black in the control bar.

Points shaded in light grey („greyed out“) cannot be altered, or are not present on the medium.

Playback program

For each CD or DVD you can create a **playback program**, which is used to play only particular, selected titles or chapters on the disc.

Playback programs can also be assembled for CDs with the help of the TV screen. The TV set must therefore be switched on for all programming procedures!

Creating a CD playback program

1. Insert a CD and close the disc drawer.
2. Allow the machine to read the disc, then stop the CD by pressing the STOP button.
3. Activate the programming by holding the OK button pressed in until the message PROG appears on the integral screen.
4. In the programming window which appears on the TV screen move to the „Program“ line using the ⏮ or ⏭ button.
5. Highlight the desired title with the ◀◀ / ▶▶ buttons, and press the OK button to add it to the playback program.
6. When the program is complete, hold the OK button pressed in until the message 'PROG' disappears from the screen.

Creating a DVD playback program

1. Insert a DVD and close the disc drawer.
2. Allow the machine to read the disc, then hold the SRC button on the remote control handset pressed in to call up the on-screen control bar.
3. Press the ▶▶ button repeatedly until you reach the point ☑ .
4. Press the ⏮ button to activate programming mode. The programming window illustrated here now appears on the screen.
5. Now move to the „Title“ line by pressing the ⏮ button. In this line you can now highlight a title using the ◀◀ / ▶▶ buttons.
   The „Chapter“ line now shows the chapters of the title currently highlighted.
6. To add the DVD title marked in the Title line to the program, simply press the OK button. The title now appears in the „Program“ line.

   DVD: chapter programming:
   If you wish to include only individual chapters in the program, rather than a complete DVD title, the first step is to move to the desired title in the Title line. When you reach the desired title and highlight it, the chapters of this title are displayed in the „Chapter“ line. Now move to the „Chapter“ line by pressing the ⏮ button briefly. In the „Chapter“ line you can now select the desired chapters using the ◀◀ / ▶▶ buttons, and add them to your program using the OK button.
7. Proceed as under Point 6 in order to include additional titles or chapters in the program.
8. When the program has been created, press the ⏭ button repeatedly to take you back to the on-screen control bar. The programming window closes, and the playback program is now stored.

Expanding a playback program

Start by moving to the programming window, as described above.

You can now attach additional titles or chapters to the existing program using the procedure already described.

When the program is complete, store it as described in Point 8.

Erasing individual titles or chapters from a playback program

As already described, first move to the programming window.

Use the ⏮ / ⏭ buttons to move to the „Program“ line.

In this line select the titles to be erased using the ◀◀ / ▶▶ buttons.

Press the OK button briefly to erase the marked title.

When programming is completed, store the program as already described.

Disabling a playback program

You can temporarily disable a playback program by switching off the FTS function; this is done by pressing the ◀◀ button in the first line of the programming window.

Now the complete disc is played back. Next time you insert the same disc, the playback program is active again.

Erasing a playback program

To erase a playback program completely, move to the bottom line of the programming window (Erase All), and press the OK button briefly. This erases the program.

DVD / VCD special functions

(menu operation and navigation)

Menu function

A DVD may contain a Disc Menu with selection facilities for individual **titles** and / or **chapters**. Depending on the DVD, the disc may also contain games, bonus material or alternatives for camera angle, synchronous languages or sub-titles, which can be set or called up via the Disc Menu.

Note:

The contents, appearance and behaviour of the Disc Menu are dictated and controlled by the disc itself. If you encounter problems in connection with the Disc Menu, please contact the manufacturer or retailer of the disc.

Calling up and operating the DISC Menu

The **Disc Menu** can be called up at any time during playback, in order to make adjustments.

- To call up the menu press the SRC button briefly.
  If the DVD contains a Select menu, this now appears on the TV screen. The integral screen displays the message '*INFO*'.
- Using the numeric buttons or the cursor buttons (⏮, ⏭, ◀◀, ▷▷) highlight the desired selection in the menu. Press the OK button [***ENTER***] to activate or carry out the selected menu point.
- Press the SRC button again briefly to leave the Select menu.

Opening and closing the menu using the F1 remote control handset
Press the blue SRC ◎ - rocker to call up the Disc Menu.
Press the blue SRC ◎ - rocker again to leave the menu.

Manual CURSOR control

The ***CURSOR*** buttons on the remote control handset

are used with the **DVD 1230 R** both to control the functions of the mechanism (skip back, skip forward, search) and also to navigate within menus. The **DVD 1230 R** detects automatically whether you are operating the disc mechanism or finding your way through a menu.

A few DVDs, mostly older and quite rare, give the machine no clues whether a menu is currently open, i.e. they do not pass relevant information to the player. With these discs the screen display '*INFO*' does not appear when a menu is open, and it is not possible to navigate within the menu. In such cases the **DVD 1230 R** can be switched to '***Cursor Navigation***' mode.

Switching to CURSOR control

Hold the OK button on the remote control handset pressed in until the message '*CURSOR*' appears on the integral screen. Now even problematic menus can be operated.

Switching off CURSOR control

To revert to normal operation hold the OK button pressed in again until the '*CURSOR*' message on the screen disappears.

Note:

In Cursor mode the buttons of the control button block carry out menu control functions exclusively.

For normal control of the disc mechanism you must therefore first leave Cursor mode.

Static and single frames

- For static pictures press the PAUSE button briefly during playback.
- To call up the next single frame press the PAUSE button again briefly.
- To resume normal playback press the OK button.

Note: Single frame via control bar:

Under the point

single frames can also be displayed using the control bar.

Slow motion

The speed of slow motion playback can be set to any of three stages: $^1/_2$, $^1/_4$ and $^1/_8$ speed.

- To play back at $^1/_2$ speed hold the PAUSE button pressed in for about 2 seconds; note that the sound will be muted.
- To switch to the other speeds hold the PAUSE button pressed in again for about 2 seconds.
- The playback speed is displayed on the screen all the time that slow motion is active:

- To leave slow motion playback press one of the buttons OK, PLAY, PAUSE, ◀◀, ▶▶ or STOP as desired.

Note: Slow motion via control bar

Under the point

the slow motion function can also be obtained using the control bar.

Camera angle

If a DVD or VCD includes scenes which were recorded using different camera viewing angles, the screen displays the following symbol:

This symbol shows the number of available angles of view (e.g. 7) and the current angle of view (e.g. 3) displayed on the TV screen.

- Provided that the angle symbol **showing alternative camera angles** is displayed on the screen, the next angle of view can be selected either by a **long press** on the F1 / F2 button, or by direct input using the numeric buttons (0 . . . 9). The symbol always shows the next angle of view.
- If the DVD does not contain alternative camera angles, the following symbol appears on the screen after a **long press** of the F1 / F2 button:

X

Selecting camera angle using the F1 remote control

Hold the PIP button pressed in until the angle of view symbol appears on the TV screen for about five seconds.

During this period you can switch to alternative camera angles by pressing the PIP button.

Switching audio channels

Usually you select the audio channel (e.g. Dolby Digital, DTS, MPEG, Stereo etc.) in the Disc Menu when you start the DVD. Please follow the instructions included in the menu.

However, the audio channel and the synchronous language can also be changed during playback, if there are alternatives on the DVD.

- Briefly press the (MODE) button on the front panel or the remote control button (F1 / F2). The on-screen control bar now appears on the TV screen for a few seconds.
- Repeatedly press the (MODE) button briefly on the front panel, or the (F1 / F2) button on the remote control handset. This changes the audio channel during this period.

Switching audio channels
using the F1 remote control handset

- Press the red (PIP) button briefly.
- You can now switch to the audio channels present on the disc by repeatedly pressing the red (PIP) button.

Note:

Some DVDs prevent you switching audio channels during playback. In this case select an alternative audio channel using the **Menu function**.

Sub-titles: selecting the language

Usually you select the sub-title language in the Disc Menu when you start the DVD. Please follow the instructions included in the menu.

However, you can also change the sub-title language during playback, if alternatives are present on the DVD. To do this call up the on-screen control bar (see **'On-screen control bar'**).

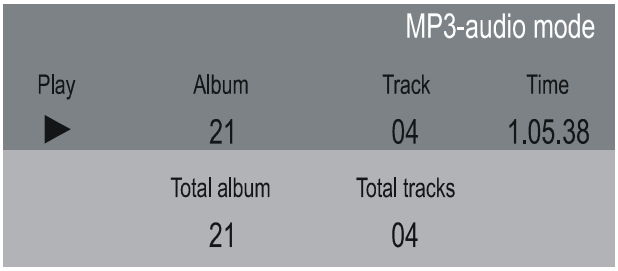
Selecting the sub-title language
using the F1 remote control handset

- The sub-title language can also be called up directly using the **F1** handset by pressing the (AV STORE) button. Press the button repeatedly to leaf through the sub-title languages present, as long as the on-screen control bar is displayed.

Note:

Some DVDs prevent you switching the sub-title language during playback. In this case use the **Menu function** to select an alternative sub-title language.

Playing MP3 CDs



An MP3 CD can hold up to 32 album directories.

To select an album directory press the (◀◀) / (▶▶) buttons on the front panel (◀◀ / ▶▶ buttons on the remote control handset).

To select a title / track in an album directory, press the (⏮) / (⏭) buttons on the front panel (⏭ / ⏮ buttons on the remote control handset).

The desired album / track number can also be entered directly using the numeric buttons on the remote control handset.

- In Stop mode the numbers are used to select an album.
- In Play mode the numbers are used to select music tracks.

You can interrupt playback of an MP3 track by pressing the (PAUSE) button, and resume playback with the ⏭ / (PLAY) button. Press the (REPEAT) button to select the repeat mode: REPEAT TRACK / ALBUM / DISC.

Note:

It may take more than 10 seconds for the machine to read the contents of an MP3 CD since one disc can contain a large number of collections of music tracks.

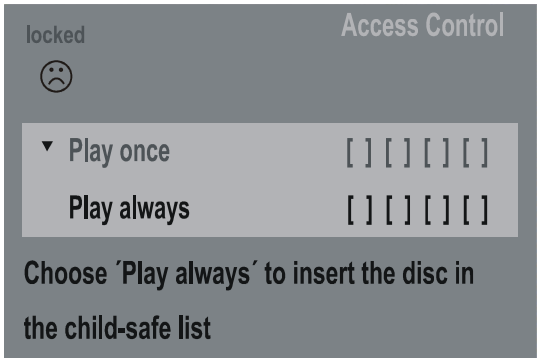
Only the first „session“ of a multi-session disc is supported.

The following formats are supported:
- CDs to ISO 9660 format
- max. 30 characters
- max. file cascading: 8 levels
- max. ALB number 32
- supports VBR bit rate
- supported sampling frequencies for MP3 CD: 32 kHz, 44.1 kHz, 48 kHz
- supported bit rates for MP3 CD: 32, 64, 96, 128, 192, 256, 320 (kbps)

The following formats are **not** supported:
- Files such as *.WMA, *.AAC, *.DLF, *.M3U, *.PLS
- File names including Chinese characters
- Discs on which the recording session was not closed (Non Session Closed)
- Discs which were recorded using the UDF format
- Files which contain ID3V2 tags

Child security

To prevent certain DVDs and VCDs being played without approval, the DVD player features a child-lock. If you switch on the child-lock as described below, the machine will only play the DVDs and VCDs you authorise (approve) without restriction.



To play another DVD / VCD the user is required to enter the code number (PIN code) to unlock the child-lock. This is done using the **OSD** access control menu.

When the code has been entered correctly, playback starts automatically.

See the section **'*Switching on child-lock*'** for details of activating the child-lock and marking authorised DVDs / VCDs.

Note:

If you forget your code number, you can erase it using the following procedure: place the non-authorised disc in the machine. Interrupt the **OSD** access control menu by pressing the STOP button. As described in **'*Switching on child-lock*'**, switch to Code Input and press the STOP button four times. The child-lock is now switched off.
See **'*Switching on child-lock*'** for switching the child lock on again.

Switching on (the child-lock)

1. This is only possible when playback is stopped. If a disc is playing, you must first stop it.
2. Hold the SRC button pressed in to call up the **control bar**.
3. Select the menu point **'OSD'** using the ◀◀ / ▶▶ buttons.
4. Select the 'Features Menu' function (symbol) using the ▶▶| / |◀◀ buttons.
5. Select the „Access control“ function by pressing the ▶▶ button.
6. You are requested to enter a four-digit code number, or PIN number, using the numeric buttons (0 . . . . 9), which you can choose yourself. You must then confirm it by entering the code number again. This code number must be entered every time you wish to play a DVD video disc or video CD.
7. Select the function 'Child-lock' using the ▶▶| / |◀◀ buttons.
8. Select the 'Lock / Unlock' function using the ▶▶ button.
9. Activate the child-lock by pressing the ▶▶| button, or press the |◀◀ button to disable the child-lock.
10. Press the ◀◀ button or the OK button to leave the access control menu.
11. From now on this PIN code must be entered every time you wish to see a DVD video or video CD, unless you have authorised (approved) the DVD or VCD for viewing by all age groups.
12. To switch off the child-lock, repeat the procedure described above, and disable the child-lock under Point 9 by pressing the |◀◀ button.

Authorising (approving DVDs / VCDs)

1. Place the DVD or VCD which you wish to authorise in the machine, and close the disc drawer.
2. The **OSD** access control menu appears on your TV screen.
3. Use the ▶▶| / |◀◀ buttons to select whether the DVD is to be played always or only once. If you select „Play always“, the DVD in the machine will be playable in future without any access control.
4. Enter your four-digit code number.

Note:

You can authorise a total of 120 DVDs or VCDs.

VCDs with several titles, and multi-page DVDs, may have different IDs, in which case each title has to be authorised separately.

In the case of DVDs containing scenes which are rated higher than the set rating, this level of security makes it possible for such scenes either not to be shown or for alternatives scenes to be shown. This feature must be supported by the DVD; the ratings vary from country to country.

Explanation of terms, useful information

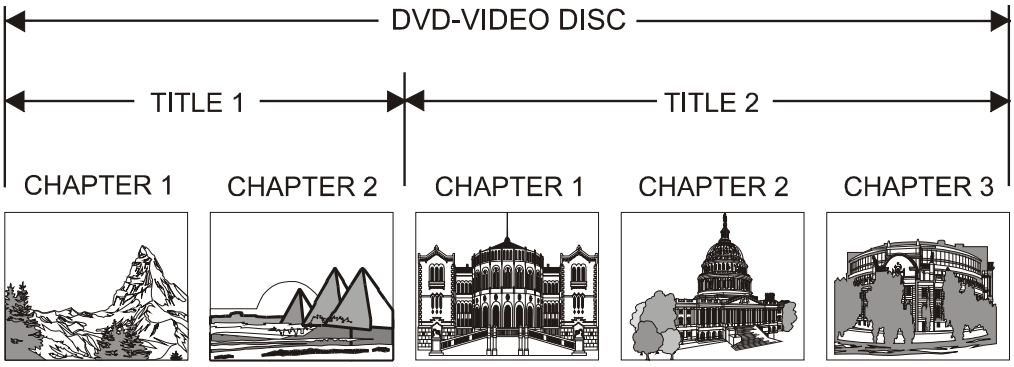
DVDs can be recognised by the logo shown here.

DVDs have a very high storage capacity, and offer top-quality picture and sound reproduction.

Video CDs (VCD) can be recognised by the logo shown here. They also provide digital picture and sound information, but their lower storage capacity means that they do not quite attain the quality of DVDs.

Depending on the type of material stored on the DVD or VCD (cinema film, video clips, film trailers, information, bonus material etc.) the disc may contain one or several titles. Each title may be sub-divided into several **Chapters**. These chapters allow direct access to individual film scenes.
For historical reasons titles on a VCD are also known as **tracks,** and chapters as an **index**.

This DVD player provides simple, convenient access to any title or chapter by means of the on-screen control bar.



Important notes

- **The actual behaviour of any particular DVD is determined by the disc manufacturer. Different DVDs may vary considerably in their menu operation and running characteristics (e.g. resume, skip back to menu, end of playback at end of title etc.).**
- **These operating instructions can only describe the basic „normal behaviour".**
- **If a DVD does not conform to this, please follow the DVD manufacturer's instructions, as displayed on the TV screen.**

Some DVDs feature a regional code implanted by the manufacturer, designed to limit the use of these discs to particular regions of the world. The **DVD 1230 R** plays all DVDs intended for Region 2 (Europe), and all DVDs which feature no regional restriction.

If you insert a DVD in the disc drawer, and see a note on the screen informing you of an incorrect regional code, please contact your DVD supplier and exchange the DVD for a version approved for Europe.

CD

A Compact Disc (CD) is a digital data medium which requires a little care in handling:

- The surface of a CD may only be cleaned using a soft, dry cloth. Wipe in straight lines from the centre towards the edge.
- Never use petrol, paint thinners, disc cleaning fluids or similar agents.
- CDs must be handled with care to avoid major damage to the surface. Severely scratched surfaces, writing on the discs, or sticking labels on the discs may result in a CD which can no longer be read.
- CDs should not be heated or bent. Choose a storage site which fulfils these requirements.

DSP (**D**igital **S**ignal **P**rocessor)

The **DVD 1230 R** features a freely programmable signal processor. A DSP can process digital signals in any way, and that is why they allow better oversampling rates than standard modules.

DVD

DVD video exploits the latest state of MPEG 2 data compression technology, which makes it possible to store an entire cinema film on a single 12 cm CD.

The variable bit rate compression of the DVD, with a read speed of up to 9.8 Mbit per second, is capable of recording even the most complex images in their original quality. The crystal-clear digital pictures have a horizontal resolution of 720 pixels (points) over more than 500 lines. This resolution is twice as high as that of the VHS system, is better than that of LaserDisc, and is directly comparable to the resolution of digital master recordings made in recording studios.

DVDs are produced to meet either the PAL or NTSC video norm. This multi-norm playback device is suitable for reproducing both types, and plays them in the best possible quality on your multi-norm TV set. Speech barriers are a thing of the past, thanks to sound tracks in up to eight languages, and sub-titles - if present on the disc - in up to 32 languages. And whether you watch DVDs on a wide-screen or conventional television, the quality will always be the same as when you originally viewed the film at the cinema.

FTS

The **FTS title select program** gives the user the opportunity to change the sequence of playback of the tracks on an audio CD. The selection is made and played using the „OSD“ menu.

Camera angle

Many DVDs and VCDs contain scenes which were recorded using different camera view angles. When such a disc is played back, the screen displays a symbol which indicates the number of available angles (e.g. 7) and the currently selected angle (e.g. 3). The **DVD 1230 R** can easily be switched to any of the different camera viewing angles.

Menu function

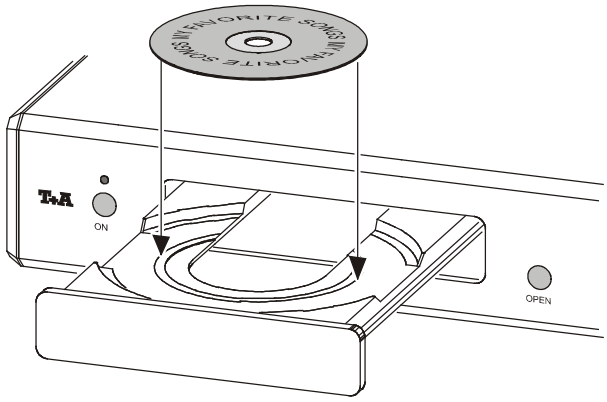
A DVD may contain a Disc Menu with selection facilities for individual **titles** and / or **chapters**. Depending on the DVD, the disc may also contain alternatives for camera angle, synchronous languages, sub-titles etc. The menu function of the DVD player enables you to select these options from the Disc Menu.

SHUFFLE

In Shuffle mode the tracks of a CD or the titles of an FTS program can be played back in a randomly selected order.

CD SINGLES

CD singles are discs of smaller diameter and correspondingly shorter playing time. The **DVD 1230 R** is capable of playing CD singles. To load a CD single place the disc in the circular depression in the centre of the drawer.



TOC

Internal index (TABLE OF CONTENT) of a CD.
If the TOC area of a CD is unreadable due to damage, scratches etc., the entire CD is rendered unusable.

TRACK

Track is another termed used for a title on a CD. The tracks and their duration are stated on the CD sleeve.

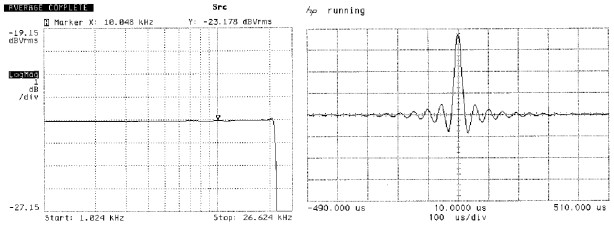
Technical description
Oversampling

The audio data on CDs and DVDs is stored at a sampling rate of 44.1 or 48 kHz - i.e. for each second of music 44.100 or 48.000 sampled values are available for each channel. In the **DVD 1230 R** the audio data read from the DVD or CD is „multiplied“ to a higher sampling rate (384 kHz) before it is converted back into analogue music signals. This process delivers a very much better, more finely graduated signal to the converter, which can then be converted with correspondingly higher precision. The raised sampling rate is a calculating process for which there are many different mathematical methods. In almost all digital audio devices which exploit the advantages of increased digital sampling rate a process known as a FIR filter is employed for this purpose. At **T+A** we have been carrying out research for more than ten years, aimed at improving the oversampling process, because the standard FIR method has one drawback to set against its indisputable advantages: it adds small pre- and post-echoes to the music signals. At **T+A** we have developed mathematical processes (known as Bezier polynomial interpolators) which do not share this disadvantage. For this reason they should sound better and more natural than the usual standard process. Since the calculating procedure employed by us is considerably more complex than the standard method, the **DVD 1230 R** features a high-performance digital signal processor (DSP) which carries out the over-sampling process with immense precision (56 bit) using special algorithms developed by **T+A**.

The freely programmable DSP which we use is capable of carrying out the oversampling process using any method of calculation. For this reason we have implemented two slightly modified Bezier processes (filters 2 and 4) in the **DVD 1230 R** in addition to the pure Bezier process (filter 3), together with two variants of the standard process („standard“ filter and filter 1). For more information on the five different processes please refer to the next section. You can switch between the different algorithms using the FILTER button, and decide for yourself which of the filters you prefer.

Standard FIR filter

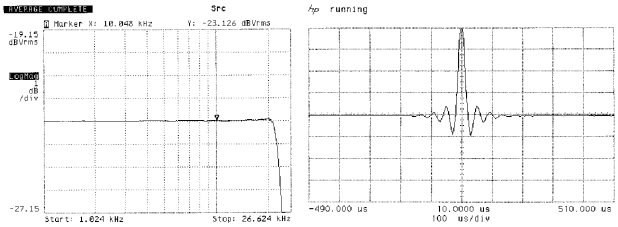
The long FIR filter is the standard oversampling process in digital technology, offering extremely linear frequency response, very high damping, linear phase characteristics and constant group delays. The disadvantage is the pre- and post-echoes which are added to the signal. These „time range errors“ tend to affect the music signal’s dynamics, precision and naturalness, and reduce spatial orientation.



Frequency response and transient characteristics of the long FIR filter

Filter 1 (short **FIR** filter)

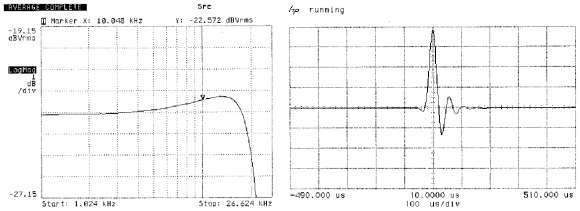
Shortening the filter (lower coefficient) reduces the time range errors, albeit combined with a slight loss of linearity in the frequency range and damping performance.



Frequency response and transient characteristics of the short FIR filter

Filter 2 (**Bezier** interpolator plus **IIR** filter)

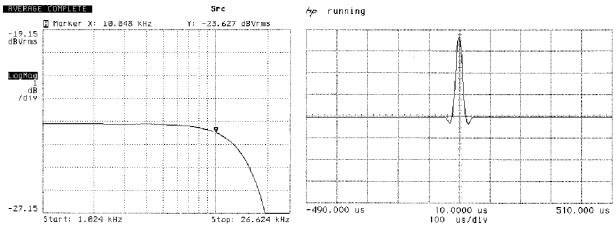
In this process an ideal Bezier interpolator is combined with what is known as an IIR filter. This eliminates the problematic pre-echo of the FIR method. This process produces highly „analogue“ system characteristics, with a sound quality and measured performance similar to those of good analogue disc players.



Frequency response and transient characteristics of the Bezier interpolator plus IIR filter

Filter 3 (pure **Bezier** interpolator)

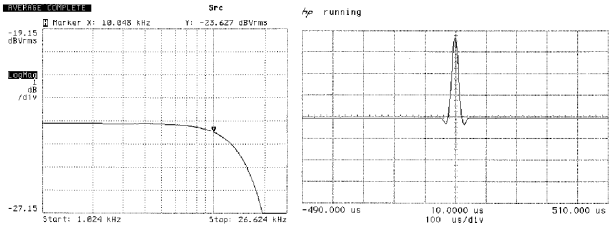
This process delivers a perfect reconstruction of the original music signal. It exhibits no pre- or post-echoes of any kind, and does not add coloration or timing errors to the original signal. In sonic terms this method offers an impressive blend of naturalness, good dynamics and accuracy. This is our preferred process due to its advantages in respect of sound, and is the basic (default) setting of the **DVD 1230 R**.



Frequency response and transient characteristics of the Bezier interpolator

Filter 4 (**Bezier** interpolator plus **Noise-Shaping**)

In this variant what is known as „noise-shaping“ is added after the ideal Bezier algorithm. This supplementary stage further reduces the basic hiss in the audible range. With certain types of material (e.g. classical music with a very wide dynamic range) this can be an additional advantage, but does result in a slight loss in precision compared with the „pure“ Bezier process.

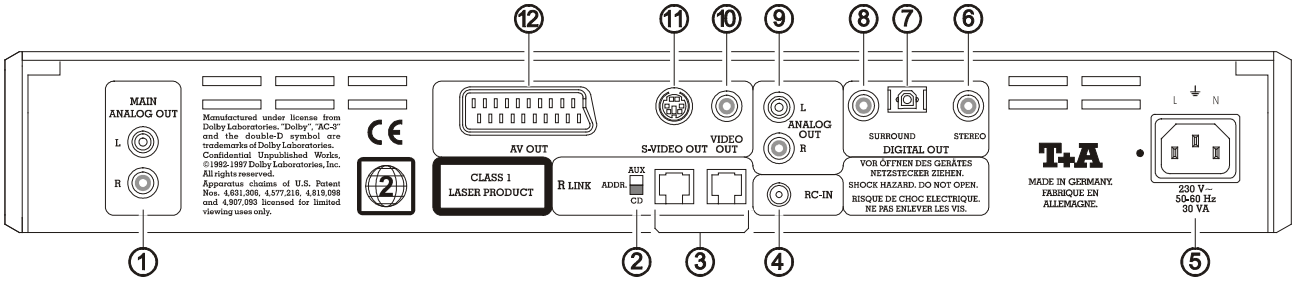


Frequency response and transient characteristics of the Bezier interpolator plus noise-shaping

Installation
Using the unit for the first time
Safety notes

This chapter describes all the matters of fundamental importance for setting up and operating your DVD player. This information is not relevant to your daily handling of the system, but should still be read and noted carefully before using the machine for the first time.

Back panel connections



① MAIN ANALOG OUT

The analogue output of the DVD video player supplies a fixed-level output signal. It is designed for connection to a pre-amplifier, integrated amplifier or receiver with its own volume control.

The output sockets should be connected to the corresponding (L/R) **AUX** input sockets (**INPUT**) of the pre-amplifier, integrated amplifier or receiver.

'ANALOG OUTPUT **L'** to **'**INPUT **L'**
'ANALOG OUTPUT **R'** to **'**INPUT **R'**

② RLINK ADDR.

Change-over switch to determine the remote control address of the DVD player in a **T+A R**LINK system.

Note:

If your **T+A 'R'** system does **not** include a CD player in addition to the DVD player, then the DVD player can be configured as **CD** using the **'RLINK ADDR.'** on the back panel of the machine.

In this case the **analogue output** of the DVD player should be connected to the **CD** input of the pre-amplifier, integrated amplifier or receiver; the CD button now selects the DVD player as the current source device.

If you set the address to **'CD'**, you should press the CD button instead of AUX to operate the DVD player.

③ RLINK

Control input / output sockets for the **T+A R**LINK system:

Both sockets are wired identically - either of the two sockets can serve as input, while the other can then be used as output to the next **R**LINK device.

④ RC-IN

RC input socket for connecting a **T+A** amplifier with **RC** control.

⑤ Mains input

The mains power lead is connected to this socket. For details of a correct mains connection please read the notes in the chapter **'Installation,** ***Using the unit for the first time, Safety notes*****'.**

⑥ DIGITAL OUT STEREO

Co-axial digital output for connecting an external digital / analogue converter or digital amplifier. Please be sure to use high-quality 75 Ω cable with Cinch connectors.

Note:

This output does not contain sub-code information (e.g. copy protection information). It is therefore not suitable for use with digital recorders.

⑦ DIGITAL OUT SURROUND

Optical digital output for connecting a digital surround decoder.

⑧ DIGITAL OUT SURROUND

Co-axial digital output for connecting a digital surround decoder. Please be sure to use high-quality 75 Ω cable with Cinch connectors.

⑨ ANALOG OUT

Sound output for TV sets, video recorders or surround decoders.

⑩ VIDEO OUT

Picture output for TV sets, video recorders or surround decoders.

⑪ S-VIDEO OUT

Socket for connecting SVHS TV sets, video recorders or surround decoders.

⑫ AV OUT (SCART)

Socket for connecting TV sets, video recorders or surround decoders with a SCART socket.

The SCART socket carries the high-quality RGB video signal as well as the standard composite video signal.

To achieve best possible video quality, please set your TV set to RGB mode if possible (see operating instructions supplied with your television).

Setting up the DVD player

Carefully unpack the **DVD 1230 R** and store the original packing materials carefully. The carton and packing are specially designed for this unit and will be needed again if you wish to move the equipment at any time. Please be sure to read the safety notes in these instructions.

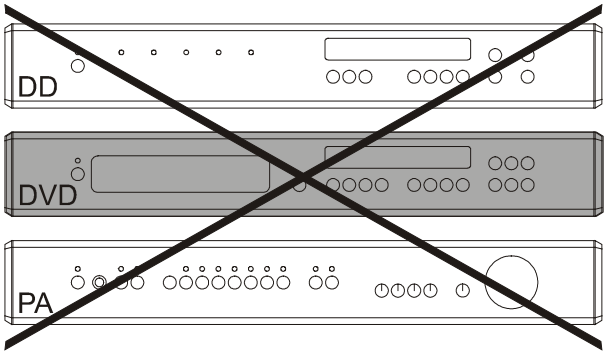
If the unit gets very cold (e.g. when being transported), condensation may form inside it. Please do not switch it on until it has had plenty of time to warm up to room temperature, so that any condensation evaporates completely.

Before placing the unit on a sensitive surface, please check the compatibility of the lacquer and the unit's feet at a non-visible point. Fit a layer of protective material if necessary.

The unit should be set up on a rigid, level base. If you are placing the unit on resonance absorbers or de-coupling components, make sure that they do not compromise its stability.

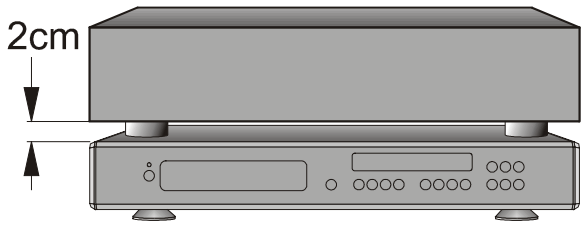
The unit should be set up in a dry, well-ventilated site, out of direct sunlight and away from radiators and other heaters. It must not be located close to heat-producing objects or devices, or anything which is heat-sensitive or highly inflammable.

The DVD player must never be set up between heat-generating devices such as integrated amplifiers (PA), power amplifiers or surround decoders (DD).

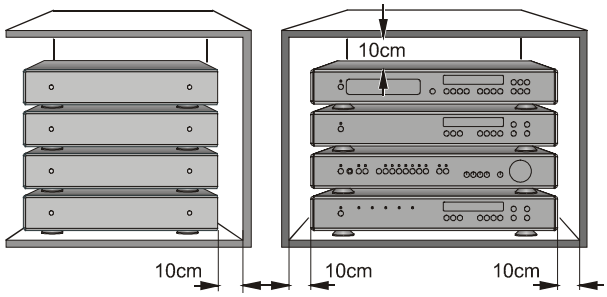


In such combinations the DVD must always be set up either as **top** or **bottom** unit in a stack.

'R' series devices dissipate some of their heat via the case cover. For this reason units of any other make which are placed on top of a **T+A 'R'** series device must stand on feet at least 2 cm high.



When installing the unit on a shelf or in a cupboard it is essential to provide an adequate flow of cooling air, to ensure that the heat produced by the unit is dissipated effectively. For this reason there must be at least 10 cm free space **to both sides** and **behind** the units. There should also be 10 cm **above** the case to the next cupboard or shelf.



Any heat build-up will shorten the life of the DVD player, and could be a source of danger!

Mechanical de-coupling

The area on which you set up your high-quality Hi-Fi equipment, and the actual surface on which it stands, have an influence on the achievable sound quality which should not be under-estimated. The surface should be as heavy, stable, hard and flat as possible. The unit is supplied with the newly developed **T+A** conical absorber feet. These feet feature internal damping characteristics which de-couple the DVD player extremely effectively from the base surface.

Note:
The **T+A** absorber cones can be screwed in or out to compensate exactly for any unevenness of the base surface.

The unit must be adjusted carefully so that it is exactly horizontal in all directions. All the feet must make firm contact with the base surface; the unit must not 'wobble'!

Wiring

Notes on wiring

- You will find wiring diagrams on the following pages.
- Push all connectors firmly into their sockets. Loose connections can cause humming and other unwanted noises.
- Connect the analogue output sockets of the DVD player to the input sockets with the same designation on the pre-amplifier or integrated amplifier, i.e. **'R'** to **'R'**, **'L'** to **'L'**. If you neglect this, the stereo channels will be the wrong way round.
- Deploy the mains and loudspeaker cables and the **R**LINK lead as far as possible from signal interconnects and aerial leads.
- Connect the machine to a properly earthed mains socket using the mains lead supplied.
- To obtain maximum interference rejection the mains plug should be fitted in the mains socket with phase connected to the mains input socket contact which is marked with a dot (●). The phase of the mains socket can be found using a suitable instrument; ask your specialist dealer for details.

We recommend the use of the ready-made **T+A 'POWER LINE'** mains lead in conjunction with the **'POWER BAR'** mains distribution panel; this unit features a phase indicator as standard.

Once the system is completely wired, set the volume control to a very low value and switch the player on.

The integral screen of the **DVD 1230 R** should now light up, and the player should respond to control commands.

Place an audio CD in the disc drawer, and press the (PLAY) button to start playback.

Switch the amplifier to the source device **'AUX'**, switch on the loudspeaker output, and you should hear the CD.

If you encounter problems when using the player for the first time, please note that they often have simple causes which are equally simple to correct. Read the chapter entitled **'*Trouble-shooting*'** in these instructions.

Loudspeaker and signal cables

The cables employed in any Hi-Fi system have a crucial influence on the sound of the system as a whole. **T+A** therefore recommends the use of high-quality cables and connectors.

For this reason **T+A** has developed its own range of cables which includes the ideal type for every application. These cables are designed to match the special characteristics of our loudspeakers and harmonise perfectly with them.

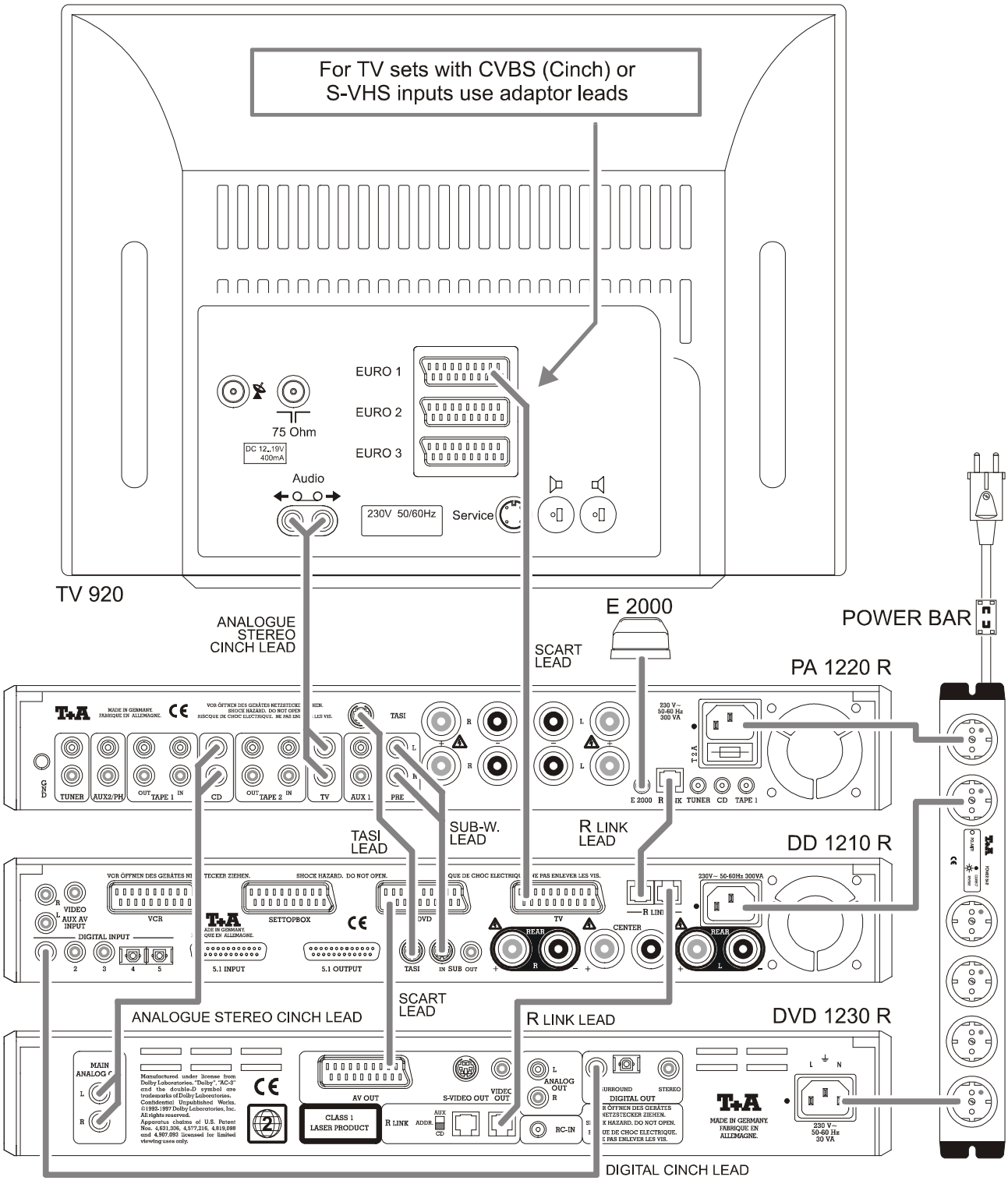
For difficult and cramped set-up conditions you can also use special-length cables and right-angle connectors from the **T+A** range of accessories. With these items you can solve virtually any problem concerning connections and set-up.

Mains leads and mains filters

The mains power supply carries the essential energy to operate your equipment, but also often carries interference from distant equipment, radios and computer systems.

To shield your equipment from electro-magnetic interference, our accessory range includes the specially shielded **'POWER FOUR'** mains lead, the ready-made **'POWER LINE'** mains lead with integral wrap-around filters, and the **'POWER BAR'** filtered mains distribution panel. Using these accessories can in many cases improve the reproduction quality of our equipment.

For any questions concerning cables and wiring please contact your local **T+A** specialist dealer, who is competent to provide comprehensive and unbiased assistance. We will also be delighted to send you a full information pack on this subject.

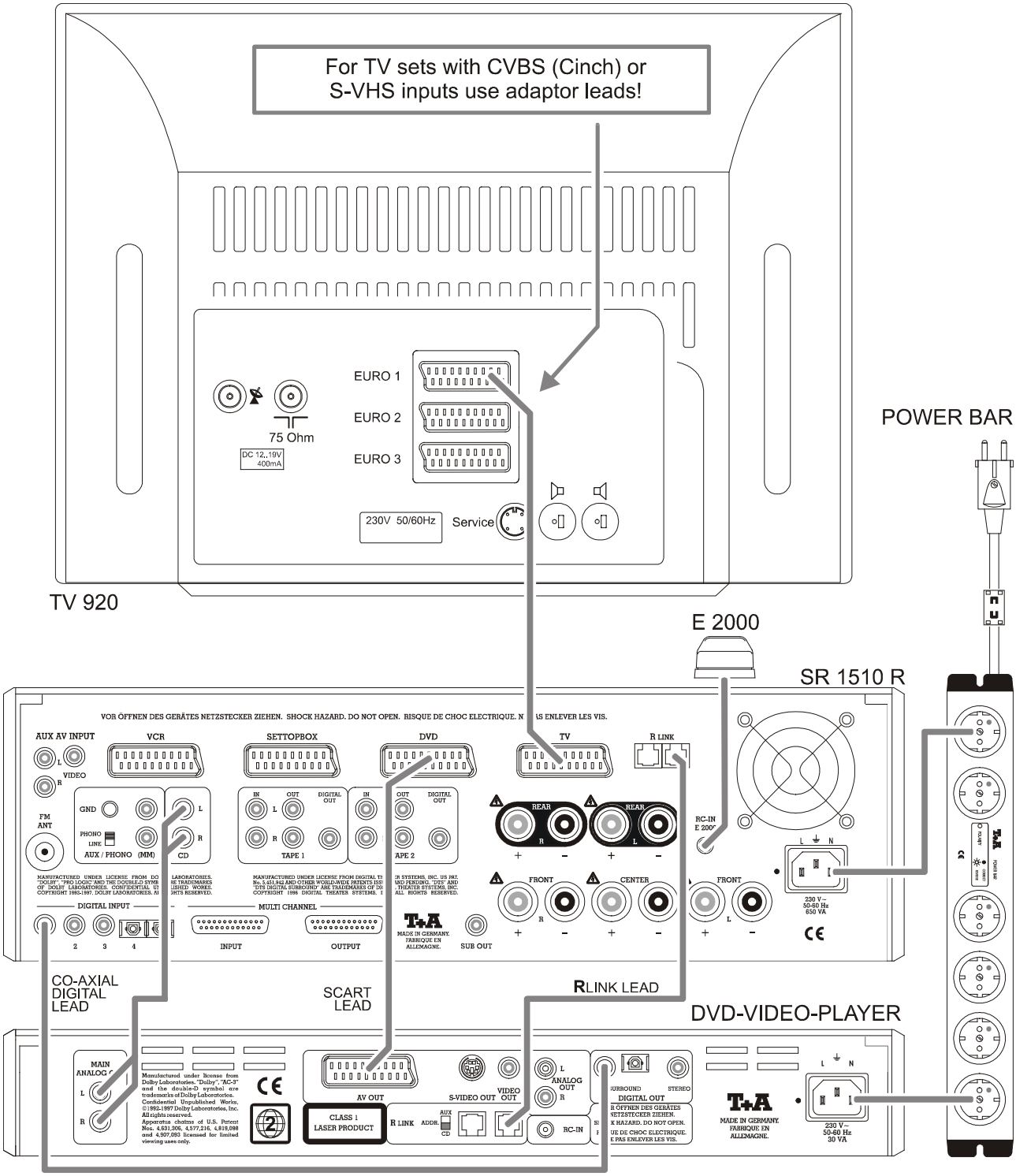


Wiring diagram 1: DVD 1230 R with digital surround decoder and integrated amplifier.

Note: (see **'Back panel connections'**, **R**LINK ADDR.)

Move the slide switch to the **'CD'** position if the system does not include a separate CD player.

If a separate CD player is present, the slide switch must be left at the **'AUX'** position. The CD player must then be connected to the **CD IN** input on the receiver. Connect **Main Analog Out** on the DVD player to the **AUX 1** input on the integrated amplifier or receiver.



Wiring diagram 2: DVD 1230 R with SR 1510 R digital surround receiver.

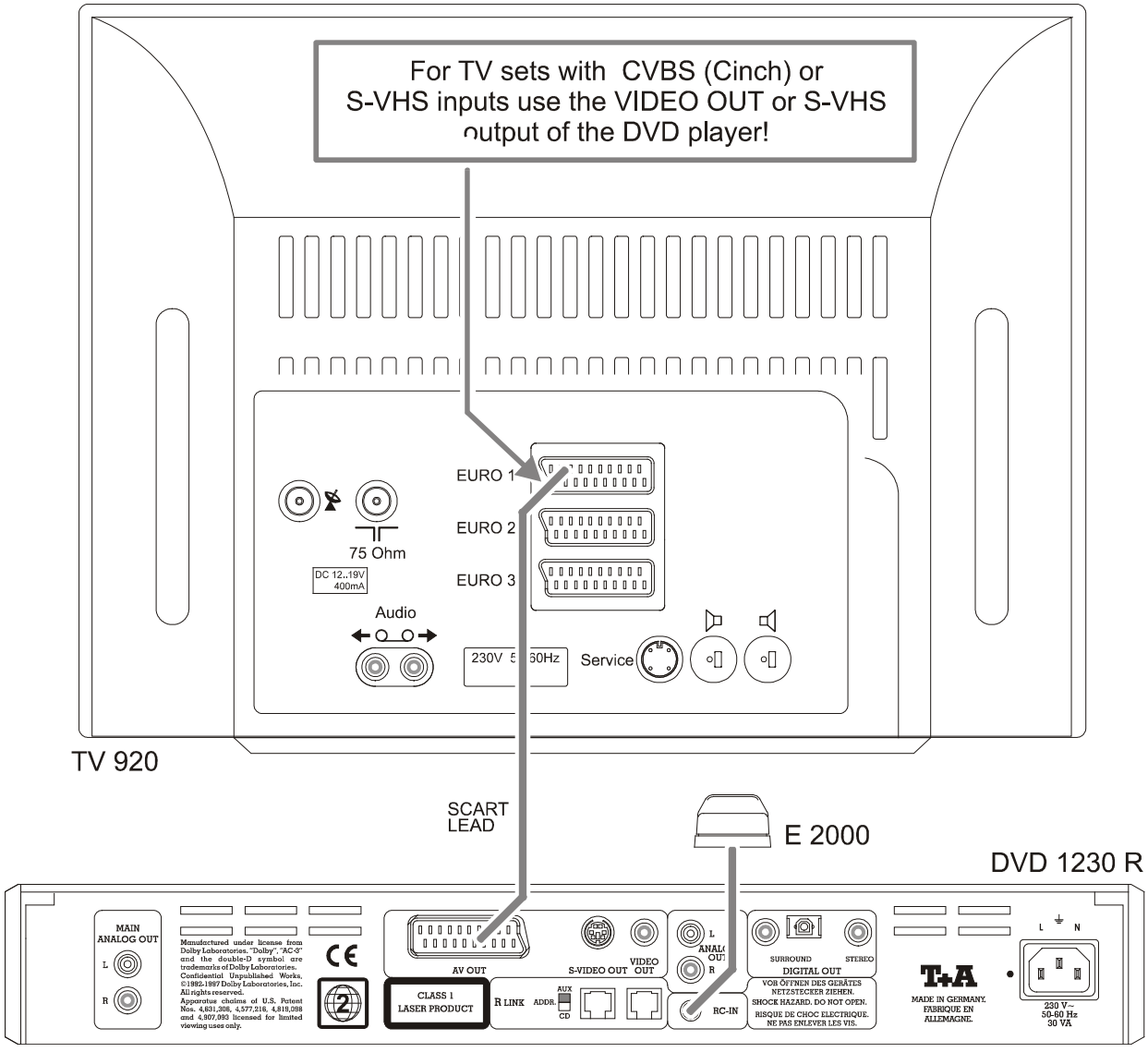
Note: (see **'Back panel connections'**, **R**LINK ADDR.)

Move the slide switch to the **'CD'** position if the system does not include a separate CD player.

If a separate CD player is present, the slide switch must be left at the **'AUX'** position. The CD player must then be connected to the **CD IN** input on the receiver. In this case **Main Analog Out** on the DVD player is left unused.

If the **DVD 1230 R** is to be operated in a non-**T+A** system, the **E 2000** remote control receiver must be connected to the **RC-IN** socket if you wish to remote-control the player. Connect the TV set directly to the **AV-OUT** socket on the DVD player using a **SCART** lead.

In this configuration the **DVD** is switched on by pressing the **source select button** (AUX) on the remote control handset (or (CD) if the machine is configured as a CD player; slide switch on the back panel).



Wiring diagram 3: DVD 1230 R in a non-T+A system

Adjustments at the TV set

If you own a **T+A TV 720**, **TV 820** or **TV 920** television, please carry out the following adjustments:

Configuring the TV 720, TV 820 or TV 920		
No.	**F1 button**	**Select / activate menu point**
1	M	Call up menu
2	PIP **red**	Device configuration
3	**yellow**	Device connection
4	SRC **blue**	Euro 1
5		Laser Disc (DVD)
6	OK	Store
7	PIP **red**	Select signal type
8		Laser Disc controls AV, RGB mode
9	OK	Store
10	M	Back to menu
11	PIP **red**	Continue
12	**yellow**	RGB priority
13		No
14	OK	Store
15	M	Back to menu
16	M	Back to menu
17	**white**	Station settings
18	SRC **blue**	TV station table
19		Select programme position 0
20	**white**	Picture signal
21	SRC **blue**	Laser Disc (DVD)
22	OK	Store
23	TV	Leave menu

Using a plasma screen or projector

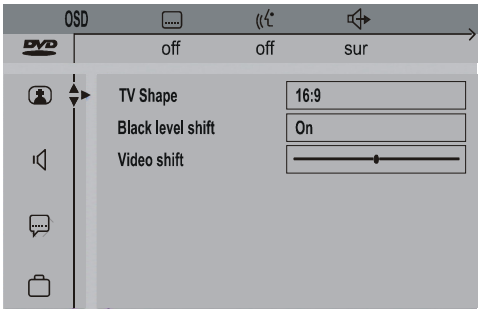
If you wish to connect a plasma screen or RGB-mode projector to the **DVD 1230 R**, the display device may need to be configured to Videosync, and a separate Sync input, if present, connected to the FBAS output of the **DVD 1230 R**.

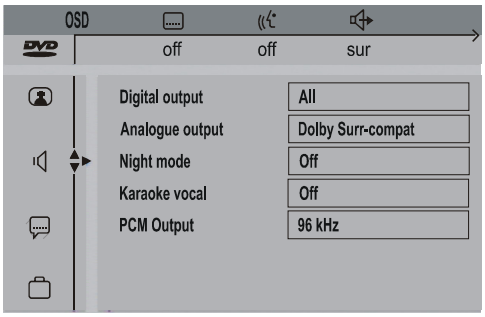
The FBAS signal contains the necessary synchronisation signals, and the **DVD 1230 R** makes them available at the Video Out Cinch socket, and PIN 19 of the SCART connector.

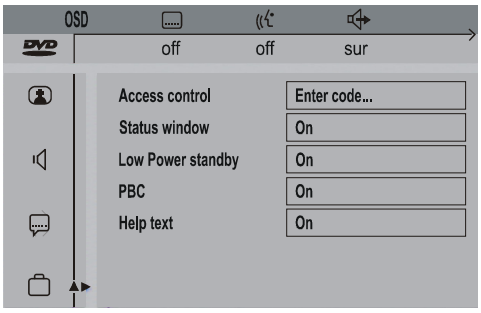
Basic device settings

In the **SETUP** menu you can adjust the DVD player to meet your personal preferences.

- Switch the unit to **STOP** mode: press the STOP button.
- Hold the blue SRC button pressed in to call up the **SETUP** menu. (**F1:** blue SRC -rocker).
- Select the menu point **'OSD'** using the ◀◀ / ▶▶ buttons.
- Move to the function to be changed using the ▼ or ▲ buttons, then select the desired option using ◀◀ or ▶▶.







- To leave the **SETUP** menu, briefly press the OK button or the blue SRC button (**F1:** blue SRC -rocker). The player now returns to the Disc Menu. From this point you can skip back to any desired film sequence in the usual way.

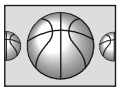
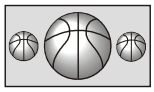
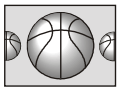
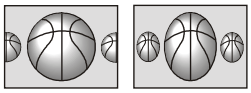
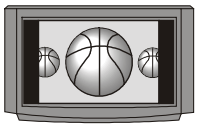
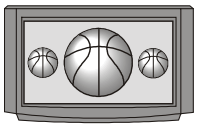
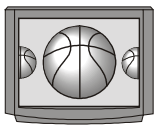
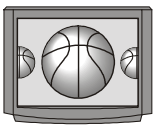
Picture format

The default factory setting is: **16 : 9** (wide-screen). If you have a conventional (**4 : 3**) TV set you can select one of the following settings:

- **Letterbox**, for a „wide-screen“ picture with black bars at the top and bottom of the screen
- **Pan-Scan**, which uses the whole height of the screen, but which cuts off the left and right edges of the picture.

If a DVD or VCD contains picture data in Pan-Scan format, the picture will shift horizontally along the screen, in order to keep the focal point of the action visible on the screen at all times.

Optimum pictures on any screen

	Video format	Film format
Original material		
Material on disc		 **Pan-Scan or distorted** (anamorphic)
TV picture 16 : 9		
TV picture 4 : 3	 **Normal**	 **Pan-Scan** **Letterbox**

Black value setting (NTSC only)

Switching on the black value setting adjusts the colour dynamics to provide a wider contrast.

Picture offset

Normally the picture on the television screen is displayed centred. If you wish to offset the picture to one side or the other, this adjustment facility allows you to do it.

Digital output

If you connect the surround decoder or surround receiver to a digital input, switch to **'ALL'**.

If your system does not include a digital surround decoder (pure stereo system) set the digital output to **'PCM'** (= Stereo).

If you select the **'OFF'** setting, no audio signal will be present at the digital output.

Analog output

In this function the sound settings for the analogue outputs can be adjusted to suit the other devices connected to the system. Two options are available:

STEREO	If you are connecting a stereo amplifier or stereo TV set.
DOLBY SURROUND	If you are connecting a DOLBY PRO LOGIC decoder.

Night mode

If you switch night mode on, the dynamics of the sound are optimised at low volume.

Karaoke mode

Do not select the „On“ setting here unless you are playing a multi-channel Karaoke DVD. The Karaoke channels on the disc are mixed down to a normal stereo sound.

PCM output

This point allows you to enable the digital output using the 96 kHz format.

If you enable 96 kHz output, audio signals from DVDs which feature a 96 kHz sound track are played back in the original 96 kHz format. Please note that the decoder connected to the system must also be designed for 96 kHz operation, and must be set up appropriately (see decoder manual).

Caution:

If your decoder does not support the 96 kHz data rate, be sure to select the 48 kHz setting in this menu point, otherwise your decoder will not be able to reproduce the audio data properly. In unfavourable circumstances your loudspeakers could be damaged if you set up the system incorrectly.

Synchronous language / sub-titles menu

The synchronous language, the sub-titles and the menu are reproduced in the language which you select, provided that this is available on the DVD / VCD in the disc drawer. If not, the player switches to the first available language on the DVD / VCD.

Access control

see **'*Child security*'**

Status window

If this menu point is activated, the status window is displayed temporarily on the screen when you are controlling a disc.

PBC (Play Back Control)

The PBC function must be switched on to display the menu of a Photo CD.

Help line

If this function is switched on, the bottom of the screen always displays a line containing a brief description of the currently selected symbol.

CD / AUX

Switching the remote control address

One of the basic settings is the correct position of the **'CD/AUX'** slide switch on the back panel of the player (see **'Back panel connections'**).

Safety notes

All components used in this device meet the current German and European safety norms and standards. For your own safety please be sure to read right through these operating instructions. It is especially important to observe the safety notes and the instructions regarding setting up and operating the equipment.

We are able to guarantee that our products are of the highest quality, and meet all our specifications in full, because we carry out strict quality checking of all materials, employ painstaking production methods controlled by highly qualified staff, and carry out a fully automatic, computer-controlled final quality control procedure.

Please read right through these operating instructions carefully before you attempt to use your new equipment. Note in particular the information regarding setting up and operating the unit, and the safety notes.

The machine must be set up in such a way that there is no chance of anyone - especially children - touching the back panel connections. Be sure to observe the notes and instructions in the chapter entitled **'Installation, Using the unit for the first time, Safety notes'**.

The power supply required for this machine is printed on the mains supply socket. The unit must never be connected to a power supply which does not meet this specification. If the machine is not to be used for a long period, disconnect it from the mains supply at the wall socket.

Mains leads must be deployed in such a way that there is no danger of damage from furniture, or people treading on them etc. Take particular care with mains plugs, distribution panels and the connections on the back panel of the player.

Liquid or foreign bodies must never be allowed inside the case through the ventilation slots. Mains voltage is present inside the unit, and there is a risk of lethal electric shock.

Protect the unit from drips and splashes of water; never place flower vases or other vessels containing fluids on top of the case.

Do not exert undue force on the mains connectors.

Caution!

The mains button is not a mains isolation switch. Even when the green LED is not glowing, parts of the machine remain connected to the mains power supply. If the machine is not to be used for a long period, we recommend that you isolate it from the mains by pulling out the plug at the wall socket.

This device should never be used without proper supervision. The machine should be set up well out of the reach of small children. This applies to all electrical equipment.

CAUTION ! LETHAL DANGER !

The unit should only ever be opened by a qualified specialist technician.

Repairs and fuse replacements should be entrusted to an authorised **T+A** specialist workshop.

With the exception of the connections and procedures described in these instructions, no work of any kind may be carried out on the machine by unqualified persons.

If the unit is damaged, or if you suspect that it is not functioning correctly, immediately disconnect the mains plug at the wall socket, and ask an authorised **T+A** specialist workshop to check it.

The unit may be damaged by excess voltage in the power supply, the cable network or aerial systems, as may occur due to static discharge or during thunderstorms (lightning strikes).

Special power supply units and excess voltage protectors such as the **T+A 'Power Bar'** mains distribution panel offer some degree of protection from damage to equipment due to the hazards described above.

However, if you require absolute security from damage due to excess voltage, the only solution is to disconnect the unit from the mains power supply and any aerial systems.

If you believe there is a danger of excess voltage (e.g. when an electrical storm is building up) disconnect the machine from the mains and the aerial socket.

All mains power supply and aerial systems to which the unit is connected must meet the currently valid regulations, and must be installed by an approved electrical installer.

Note:

Many insurance companies offer lightning damage cover for electrical equipment as part of their general household insurance.

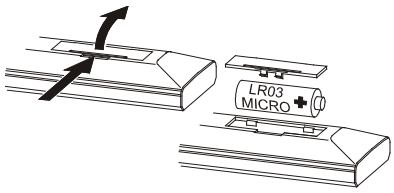
Approved usage

This device is designed exclusively for reproducing sound and/or pictures in the domestic environment. It must be operated in a dry indoor room which meets all the recommendations stated in these instructions.

Where the equipment is to be used for other purposes, especially in the medical field or for any purpose where safety is an issue, it is essential to establish the unit's suitability for this application with the manufacturer, and to obtain prior written approval for such usage.

T+A equipment which includes a radio or television receiving section must be operated within the regulations laid down by the Post Office and the Tele-communications authorities in the country in which it is used. This unit may only be employed to receive or reproduce those transmissions which are intended for public consumption. The reception or reproduction of other transmissions (e.g. police radio or mobile radio broadcasts) is prohibited.

Fitting new batteries:



To open the battery compartment disconnect the latch by pressing in, then lift the cover out. Remove the old cells and fit new dry cells of the **LR 03 (MICRO)** type in the battery compartment, taking care to fit them with correct polarity. Please remember that **all the cells must be replaced** at the same time.

Note:

If you have already re-set the remote control system to Address 2, you will need to repeat the change procedure after fitting new batteries.

Note regarding disposal of exhausted batteries:

Exhausted batteries must not be thrown in the ordinary domestic waste! In accordance with the battery decree **(BattVO)** they should be returned to the battery supplier or to your local toxic waste collection point, so that they can be recycled or disposed of safely. Local councils are obliged to make collection containers available, or to make other arrangements for collecting exhausted batteries.

Care of the DVD player:

Always disconnect the unit from the mains supply before cleaning it.

The surfaces of the case should be wiped clean with a soft, dry cloth only.

Never use abrasive or solvent-based cleaners!

Before switching the unit on again check carefully that no short-circuits exist at the terminals, and that you have not disturbed any connections.

Device approval and conformity with EC directives

In its original condition the unit meets all currently valid German and European regulations. It is approved for use as stipulated within the EC.

By attaching the CE symbol to the machine, **T+A** declares its conformity with the EC directives **RI 89/336/EEC**, amended by **RI 91/263/EEC** and **RI 93/68/EEC**, and **RI 73/23/EEC**, amended by **RI 93/68/EEC**, and the national laws based on those directives.

The original, unaltered factory serial number must be present on the outside of the unit, and must be clearly legible. The serial number is a constituent part of our conformity declaration and therefore of the official approval for operation of the device.

The serial numbers on the device and in the original **T+A** documentation supplied with it (in particular the inspection and guarantee certificates), must not be removed or modified, and must match exactly.

Infringing any of these conditions invalidates **T+A** conformity and approval, and the unit may not then be operated within the EC. Improper use of the equipment renders the user liable to penalty under current EC and national laws.

Any modifications or repairs to the unit, or any other intervention by a workshop or other third party not authorised by **T+A**, invalidates the approval and operational permit for the equipment.

Only genuine **T+A** accessories may be connected to the DVD player, or such auxiliary equipment which is itself approved, and fulfils all currently valid legal requirements.

When used in conjunction with auxiliary devices or as part of a system, this device may only be used for the purposes stated in the section entitled '***Approved usage***'.

Tested To Comply With FCC Standards
FOR HOME OR OFFICE USE

FCC Information to the user

(for use in the United States of America only)

Class B digital device – instructions:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different form that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Trouble-shooting

Many problems have a simple cause and a correspondingly simple solution. The following section describes a few difficulties you may encounter, and the measures you need to take to cure them.

If you find it impossible to solve a problem with the help of these notes, please disconnect the unit from the mains and ask your authorised **T+A** specialist dealer for advice.

Problem:	**Machine does not switch on (green LED stays dark).**
Cause:	Mains lead not connected correctly.
Remedy:	Check connection, push in firmly.

Problem:	**Machine does not respond when buttons are pressed.**
Cause:	Static discharge or powerful interference (e.g. lightning) have affected the processor's memory.
Remedy:	**Reset machine**: disconnect the mains plug, wait about 10 seconds, then plug in again. Switch the machine on.

Problem:	**Machine responds correctly when front panel buttons are pressed, but cannot be remote-controlled via an 'R' series pre-amplifier, integrated amplifier or receiver.**
Cause 1:	Batteries in remote control handset exhausted or fitted incorrectly.
Remedy:	Fit new batteries, or re-fit batteries with correct polarity.
Cause 2:	**R**LINK or **RC** plug not connected correctly to machine's **R**LINK or **RC** socket.
Remedy:	Complete connections as shown in wiring diagram; push connector in firmly.
Cause 3:	No visual contact between remote control transmitter and remote control receiver of the **'R'** series pre-amplifier, integrated amplifier or receiver.
Remedy:	Ensure direct visual contact between remote control transmitter and receiver (glass doors may prevent contact). The maximum range of the remote control system is about 8 metres. Position the remote control receiver so that it is not subjected to direct sunlight or excessively bright lighting. Fluorescent lamps and energy-saving bulbs are powerful sources of interference.
Cause 4:	The DVD player is not selected as current listening source on the pre-amplifier, integrated amplifier or receiver, i.e. the control commands from the handset are being passed to another **'R'** system device.
Remedy:	Press the CD (or AUX - see next point) on the remote control handset, and try again.
Cause:5:	The remote control address of the DVD player (**AUX** or **CD**) does not correspond to the selected audio input sockets on the pre-amplifier, integrated amplifier or receiver.
Remedy:	The "**RLINK ADDR.**" switch on the back panel can be used to configure the DVD player either as **AUX** or **CD**. You must then select the appropriate input sockets (see **'Back panel connections'**).

Problem:	**Loud hum from the loudspeakers.**
Cause:	Cinch plugs making poor contact, or faulty Cinch lead.
Remedy:	Check all connections and connecting leads carefully.

Problem:	**No sound, or distorted sound.**
Cause:	Audio connection to amplifier or TV set not correct.
Remedy:	Complete the connections as shown in the wiring diagram; push connectors in firmly. Select a different listening source to check the amplifier.

Problem:	**No sound signal via the digital output.**
Cause 1:	Digital plug not connected correctly to the digital output socket on the machine.
Remedy:	Complete connections as per wiring diagram; push connectors in firmly.
Cause 2:	Digital output switched off.
Remedy:	Switch the digital output on using the **SETUP** menu.
Cause 3:	The data format of the selected audio channel (e.g. Dolby Digital or DTS) is not recognised by the decoder connected to the system.
Remedy:	Use a decoder which supports the data formats.

Problem:	**Surround decoder / receiver fails to recognise digital surround programs (Dolby Digital or dts).**
Cause:	The digital output of the **DVD 1230 R** is wrongly configured (**PCM** instead of **ALL**).
Remedy:	Set the digital output to the correct **ALL** setting (see **'Basic device settings'**).

Problem:	**Nothing displayed on the screen.**
Cause:	Screen switched off.
Remedy:	Press (DISP) button to switch it on again.

Problem:	**The disc will not play once the disc drawer is closed.**
Cause 1:	Disc not inserted correctly.
Remedy:	Position the disc centrally: printed face up.
Cause 2:	Disc soiled.
Remedy:	Carefully clean the disc by wiping with a soft cloth from the centre to the edge. Replace the disc and try again.
Cause 3:	Disc damaged in the area of the Table of Contents (TOC). Disc unusable.
Remedy:	No remedy possible.
Cause 4:	Machine has got very cold (e.g. after transport), allowing condensation to form on the laser sensor optics.
Remedy:	Leave the machine to warm up for about an hour in a warm, well ventilated place.

Problem:	**Disc stops playing, or 'skips'.**
Cause:	Disc dirty or damaged.
Remedy:	Clean disc. Damage cannot be repaired!

Problem:	**Black and white picture, distortion or scrolling when playing a DVD or VCD.**
Cause:	The television is not set to the same picture name (PAL / NTSC) as the disc, or cannot process its picture norm.
Remedy:	Use a multi-norm TV set. These sets automatically switch to the current picture norm, or can be switched over manually.

Problem:	**Distorted TV picture.**
Cause:	Disc dirty, perhaps by fingerprints.
Remedy:	Carefully clean disc with a soft cloth, wiping in a straight line from the centre to the edge.

Problem:	**After removing the disc the machine fails to return to the Start screen.**
Cause:	The program may be waiting for a further disc.
Remedy:	Insert the next disc.

Problem:	**The picture is displayed too small or incompletely (abbreviated).**
Cause 1:	The DVD in the drawer is not set to the same picture format (**4 : 3** or **16 : 9**) as the TV set connected to the system.
Remedy:	Set the correct picture format in the **SETUP** menu.
Cause 2:	Many DVDs contain film recordings in different picture formats on the front and rear faces.
Remedy:	Turn the DVD over, or set the correct picture format in the **SETUP** menu.
Cause 3:	The television is set to the wrong picture format.
Remedy:	Set the TV to the correct picture format, i.e. the one corresponding to the DVD.

Problem:	**The DVD 1230 R fails to carry out certain functions.**
Cause 1:	Function blocked for this DVD.
Cause 2:	Function (e.g. camera angle, sub-titles etc.) not present on this DVD.
Remedy:	No remedy possible.

Problem:	**After inserting a DVD the screen displays a warning of the wrong regional code.**
Cause:	The DVD is not approved for Europe.
Remedy:	Contact your DVD supplier and exchange the disc for a version approved for Europe.

Problem:	**In rare cases the DVD's Disc Menu cannot be operated when the 'Pan-Scan' picture format is set.**
Remedy:	Set picture format to "Letterbox"; call up the Disc Menu again.

Problem:	**The DVD will not start playing; the screen displays a request to enter the PIN.**
Cause:	The child-lock is active.
Remedy:	Enter the release code. Alternatively: authorise the DVD, or switch off the child-lock (see '***Child security***').

Problem:	**If the DVD 1230 R is connected to a TV set directly using a SCART lead, this can result in a scrolling DVD picture appearing on all programme memories. This problem may occur with many types of TV.**
Cause:	The TV set is analysing the A/V switching signal from the DVD player incorrectly, or not at all.
Remedy 1:	If possible, call up the Setup menu for your TV set and switch off RGB priority. Select the RGB signal type for the DVD SCART input of your TV set.
Remedy 2:	If your television does not provide this option, connect the DVD player using an S-VHS lead, or use a SCART lead without RGB signal. Ask your **T+A** dealer for help with this.
Remedy 3:	When watching TV, switch off the DVD player by pressing the ON button on the front panel.

Problem:	**When used in a non-T+A system the machine does not respond to remote control commands, or cannot be switched on by remote control.**
Cause:	**E 2000** remote control receiver not connected.
Remedy:	Connect the **E 2000** remote control receiver as shown in **Wiring Diagram 3**. Press the **source select button** AUX (or CD) on the remote control handset to switch the machine on.

Problem:	When operating the menu for the surround decoder or surround receiver, the **DVD 1230 R** also responds.
Cause:	**E 2000** connected to the **DVD 1230 R**.
Remedy:	Connect the **E 2000** to the pre-amplifier, integrated amplifier or receiver.

Problem:	**MP3 CD does not play back.**
Cause 1:	MP3 format not supported (see '***Playing MP3 CDs***').
Remedy:	(see '***Playing MP3 CDs***')

Specification

Mechanism:	Close-tolerance linear mechanism	
	GaAlAs semi-conductor laser:	785 nm / 10 mW (VCD / CD) 650 nm / 7 mW (DVD)

Audio section

Digital filters:	Freely programmable 56-bit signal process, sampling rate converter with five selectable conversion algorithms
D / A converter:	Double mono differential circuit, two dual 24-bit / 384 kHz Sigma / Delta converters
Analogue filter:	Phase- linear Bessel filter, 3rd order, 75 kHz
Frequency response (+0, -0.6 dB):	2 Hz .... 20 kHz
Total harmonic distortion / intermodulation:	< 0.0015 %
Effective system dynamics:	98 dB
Signal : noise ratio (unweighted / A-weighted):	106 dB / 109 dB
Channel separation 1 kHz / 10 kHz:	107 dB / 107 dB
STEREO co-axial digital output:	SP-DIF, 0.5 V_{SS} / 75 Ω
SURROUND co-axial digital output:	IEC 958 for CDDA / LPCM IEC 1937 for MPEG 1 / MPEG 2, and Dolby Digital
SURROUND optical digital output:	SP-DIF, TOS-Link, 660 nm, -18 dBm (max. permissible cable length 10 m)
Digital data format:	MPEG / Dolby Digital (digital compressed) PCM 16, 20, 24 Bit / 44.1 kHz, 48 kHz, 96 kHz
Analogue output, Cinch	
Output voltage / Output impedance:	2.5 V_{eff} / 22 Ω

Video-Section

TV standard:		
No. of lines:		625 (PAL, 50 Hz) / 525 (NTSC, 60 Hz)
Reproduction:		Multi-standard (PAL / NTSC)
Video format:		MPEG 1 for VCD / MPEG 2 for DVD
DVD:		
Horizontal resolution:		720 pixels
Vertical resolution:		576 lines (50 Hz) / 480 lines (60 Hz)
VCD:		
Horizontal resolution:		352 pixels
Vertical resolution:		288 lines (50 Hz) / 240 lines (60 Hz)
Video output:		1.0 V_{SS} / 75 Ω
S-Video output:	(Y)	1.0 V_{SS} / 75 Ω
	(C)	300 mV_{SS} (Burst) / 75 Ω
RGB (SCART output):		0.7 V_{SS} / 75 Ω
Analogue audio output:		1.9 V_{eff} / 450 Ω

General

Mains power supply:	230 V / 50 Hz, 30 VA
Standard accessories:	**F12** remote control handset, **E 2000** remote control receiver, mains lead, Cinch lead, **SCART** lead, **RLINK** cable operating instructions

We reserve the right to introduce technically founded modifications.

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